(FILE 'HOME' ENTERED AT 20:11:09 ON 22 JAN 2009)

FILE 'MEDLINE, CAPLUS, EMBASE, JAPIO, BIOTECHNO' ENTERED AT 20:12:23 ON 22 JAN 2009

L1 502128 S (FUSION PROTEIN OR CHIMERA OR HYBRID)

L2 4563 S L1 AND (DNA BINDING DOMAIN)

L3 0 S L2 AND POLYMERASE DOMAIN

L4 876 S POLYMERASE DOMAIN

L5 0 S L2 AND L4

L6 457 S L2 AND POLYMERASE

L7 3 S L6 AND PROCESSIVITY

L8 2 DUP REM L7 (1 DUPLICATE REMOVED)

L9 37 S L2 AND ENDONUCLEASE

L10 24 DUP REM L9 (13 DUPLICATES REMOVED)

L11 22 S L2 AND NON-SPECIFIC

L12 10 DUP REM L11 (12 DUPLICATES REMOVED)

L13 7 S NON-SPECIFIC DNA BINDING DOMAIN

L14 3 DUP REM L13 (4 DUPLICATES REMOVED)

L15 4 S L2 AND PROCESSIVITY

L16 3 DUP REM L15 (1 DUPLICATE REMOVED)

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2004:353037 CAPLUS

DN 140:369911

TI Engineering DNA polymerase fusion with protein Sso7 DNA -binding domain for improved efficiency, processivity, and thermostability in PCR

IN Wang, Yan

PA MJ Bioworks Incorporated, USA

SO U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 20040081963 | A1 | 20040429 | US 2002-280139 | 20021023 |
| | CA 2502335 | A1 | 20040506 | CA 2003-2502335 | 20031020 |
| | WO 2004037979 | A2 | 20040506 | WO 2003-US32954 | 20031020 |
| | WO 2004037979 | A3 | 20050506 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2003284265 | A1 | 20040513 | AU 2003-284265 | 20031020 |
| | AU 2003284265 | B2 | 20080828 | | |
| | CN 1720324 | A | 20060111 | CN 2003-80105035 | 20031020 |
| | JP 2006503580 | T | 20060202 | JP 2004-546895 | 20031020 |
| | EP 1660650 | A2 | 20060531 | EP 2003-776445 | 20031020 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| PRAI | US 2002-280139 | A | 20021023 | | |

WO 2003-US32954 W 20031020

AB This invention provides protein Sso7-polymerase conjugates that exhibit improved activity in a polymerase reaction. This invention provides methods for engineering DNA polymerase fusion proteins with DNA-binding domain for improved efficiency, processivity, and thermostability in PCR applications. The face residue position selected from the group consisting of a tryptophan residue at position 24, a valine residue at position 26, and a methionine residue at position 29 of protein Sso7d were mutated. The three mutant proteins, Sso7d(G)-.DELTA.Taq, Sso7d(V)-.DELTA.Taq, and Sso7d(E)-.DELTA.Taq, showed 2,5-4-fold improvement over the wild type fusion protein. The invention further provides the protein sequence of Sso7d from Sulfolobus solfataricus.

L8 ANSWER 2 OF 2 EMBASE  DUPLICATE 1

AN 1999382411 EMBASE

TI Cellular transcription factors recruit viral replication proteins to activate the Epstein-Barr virus origin of lytic DNA replication, oriLyt.

AU Baumann, Matthias; Feederle, Regina; Hammerschmidt, Wolfgang (correspondence)

CS GSF - Natl. Res. Ctr. Environ. Hlth., Inst. Clin. Molec. Biol. Tum. Genet., Department of Gene Vectors, Marchioninistrasse 25, D-81377 Munchen, Germany. hammerschmidt@gsf.de

AU Kremmer, Elisabeth

CS Institute of Molecular Immunology, Marchioninistrasse 25, D-81377 Munchen,

Germany.

AU Hammerschmidt, Wolfgang (correspondence)

CS GSF-Natl. Res. Ctr. Environ. Health, Inst. Clin. Mol. Biol. Tumor Genet.,
Department of Gene Vectors, Marchioninistrasse 25, D-81377 Munchen, Germany. hammerschmidt@gsf.de

SO EMBO Journal, (1 Nov 1999) Vol. 18, No. 21, pp. 6095-6105.
Refs: 59
ISSN: 0261-4189 CODEN: EMJODG

CY United Kingdom

DT Journal; Article

FS 029 Clinical and Experimental Biochemistry
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

LA English

SL English

ED Entered STN: 2 Dec 1999
Last Updated on STN: 2 Dec 1999

AB DNA replication of Epstein-Barr virus (EBV) during the productive phase of the life cycle of this herpesvirus depends on the cis-acting element oriLyt. It consists of two essential domains, the upstream and the downstream component. Whereas the upstream component contains several DNA-binding motifs for the viral activator protein BZLF1, the downstream component is known to be the binding site of several cellular proteins. We identified cellular transcription factors that bind synergistically to a functionally relevant subsequence of the downstream component, the TD element. Two of these transcription factors, ZBP-89 and Sp1, stimulate replication as shown by protein fusions with the GAL4 ***DNA*** -

binding domain and a single GAL4 DNA-binding motif inserted into the TD element. In protein binding assays, we observed an interaction of Sp1 and ZBP-89 with the viral DNA polymerase and its processivity factor. Our data indicate that cellular transcriptional activators tether viral replication proteins to the lytic origin via direct protein-protein interactions to assemble the viral replication complex at oriLyt.

=> d his

(FILE 'HOME' ENTERED AT 20:11:09 ON 22 JAN 2009)

FILE 'MEDLINE, CAPLUS, EMBASE, JAPIO, BIOTECHNO' ENTERED AT 20:12:23 ON 22 JAN 2009

L1 502128 S (FUSION PROTEIN OR CHIMERA OR HYBRID)

L2 4563 S L1 AND (DNA BINDING DOMAIN)

L3 0 S L2 AND POLYMERASE DOMAIN

L4 876 S POLYMERASE DOMAIN

L5 0 S L2 AND L4

L6 457 S L2 AND POLYMERASE

L7 3 S L6 AND PROCESSIVITY

L8 2 DUP REM L7 (1 DUPLICATE REMOVED)